Yellowstone Boys & Girls Ranch WSD Wastewater Improvements Project RRGL Funding January 16, 2015

OVERVIEW

- Yellowstone Boys and Girls Ranch (YBGR) is a private nonprofit organization that has been in existence for 57 years. YBGR provides a full continuum of mental health services for high risk youth and families and has State licensure as a: Child Placing Agency, Psychiatric Residential Treatment Facility, Mental Health Center and Therapeutic Group Home.
- The 410 acre campus is located 12 miles west of Billings and includes: a Psychiatric Residential Treatment Facility for seriously emotionally disturbed children, serving on average 70 youth per day; the Public School District 58 for grades K-8 and the Yellowstone Academy (YA), a nationally accredited private high school for grades 9-12. The school not only serves the youth that live on campus but also provides day school for approximately 50 youth per day, who are bused in from schools in surrounding communities in Yellowstone, Carbon, Stillwater, Carbon and Big Horn Counties.
- All of the buildings on the campus were built through donor funds over the years. In addition to
 the lodges for youth the campus includes a clinic, an equestrian center, a recreation center
 with a bowling alley, basketball court and gym, a swimming pool and a workout room. There is
 also a chapel, a dining hall, several school buildings and vocational training buildings.
- YBGR is currently under Administrative Order on Consent by the Montana Department of Environmental Quality to bring the wastewater treatment system into compliance.
- The desired outcome of the proposed improvements is two-fold. The improvements will bring
 the system into MDEQ compliance and reduce pollution to Canyon Creek and will increase the
 capacity of the treatment system to accommodate for future growth of the YBGR.
- The Yellowstone County Commissioners have been extremely supportive of YBGR and our
 efforts to improve our infrastructure. They applied on our behalf of YBGR for a TSEP Planning
 Grant for a PER for our water system in April 2014. In May of 2014, they approved YBGR as a
 Public Water and Sewer District serving the youth in treatment, students and staff of both the
 YBGR and YA.
- The wastewater treatment system at the YBGR is inadequate to treat the wastewater generated on the ranch. Improperly treated wastewater from the wastewater lagoons is released directly to Canyon Creek, thereby polluting the water body and posing health risks to downstream users and aquatic habitat.
- The YBGR WSD is seeking funding from RRGL for the \$125,000 grant and a loan of \$750,000, Quality Schools and other private sources in order to minimize the financial burden of the wastewater improvements project so that your resources can be more focused on the mission of the ranch, to treat and educate the youth.

PROJECT DESCRIPTION

- The YBGR owns and operates a facultative lagoon system which was installed when the facility first began 56 years ago. Since that time, the Ranch has maintained the lagoons, including installing new liners and improvements in 1996. Over time, water quality regulations have become more stringent and the lagoon system can no longer meet the treatment requirements set by the Department of Environmental Quality. The Ranch is under Administrative Order to bring the system into compliance with the discharge permit.
- Wastewater currently flows through cell one, into cell two and is finally stored in cell three.
 Twice a year the entire system is discharged into Canyon Creek near the northeast corner of the lagoon cells.
- In addition to direct water quality impacts on Canyon Creek during periods of discharge from the lagoons, the PVC liners have reached their useful life and now have holes, allowing untreated wastewater to discharge to groundwater and subsequently into the adjacent surface streams.
- The RRGL grant and loan funding will be used to improve treatment and bring the system into compliance with the discharge permit. The improvements will minimize the Ranch's impacts on Canyon Creek, groundwater, and water quality overall in the region.
- The wastewater system improvements include replacing the failing liners with new HDPE that should serve the facility for more than 30 years into the future, installing a new aeration system to more effectively treat the wastewater, and installation of a "living" rock filter supporting bacteria that reduce nutrients to permittable limits.
- This project will also remove existing sludge from the lagoons which will be composted or disposed of at the Billings Regional Landfill. Sludge has been accumulating since 1996 when the cells were last improved. The accumulation decreases the total volume of the cells, which in turn decreases the amount of time that the wastewater undergoes treatment prior to being released directly into Canyon Creek.
- The YBGR has invested a significant amount of money and effort in the wastewater improvements project already; preparing a compliance plan for the Department of Environmental Quality, and working with our engineer to design the liner replacement and aeration project.
- The wastewater improvements have already been designed and approved by the Montana Department of Environmental Quality and the YBGR is now ready to complete the project once funding is secured.

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